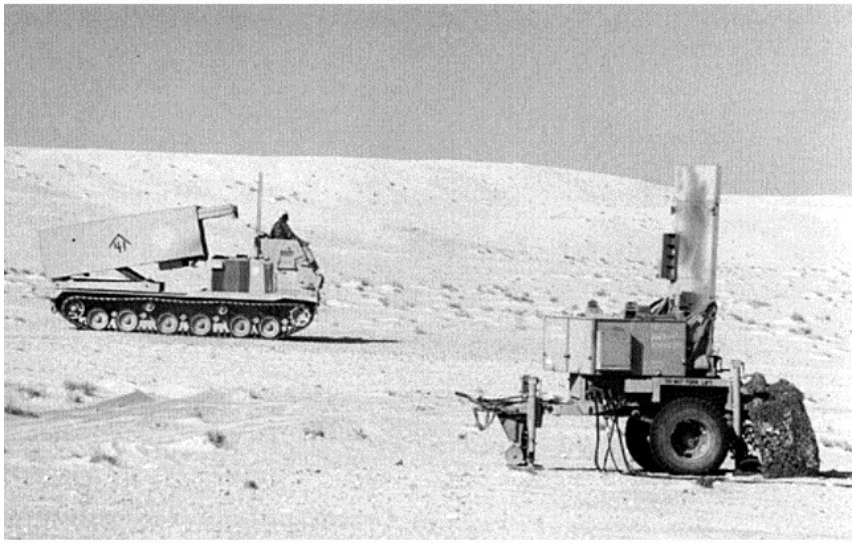
Ground Radar (AN/TPQ-46A and GWLR)



Fire Support Systems Conference May 2004

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Purpose

- **The AN/TPQ-46A Up-Grade**
  - **What it is**
  - **When it is**
- **GWLR**
  - **Current status**
  - **What it means**

AN/TPQ-46A Up-Grade System Description

- **The AN/TPQ-46A Up-Grade will provide:**
  - Replacement of DMS identified components
  - Greater detection ranges for acquisition of Mortar, Artillery, and Rocket Projectiles thru Mission Adaptive Radar Software.
  - Radar team vehicle re-configuration
  - Dual digital net (EPLRS/SINGCRS)

AN/TPQ-46A Up-Grade Description

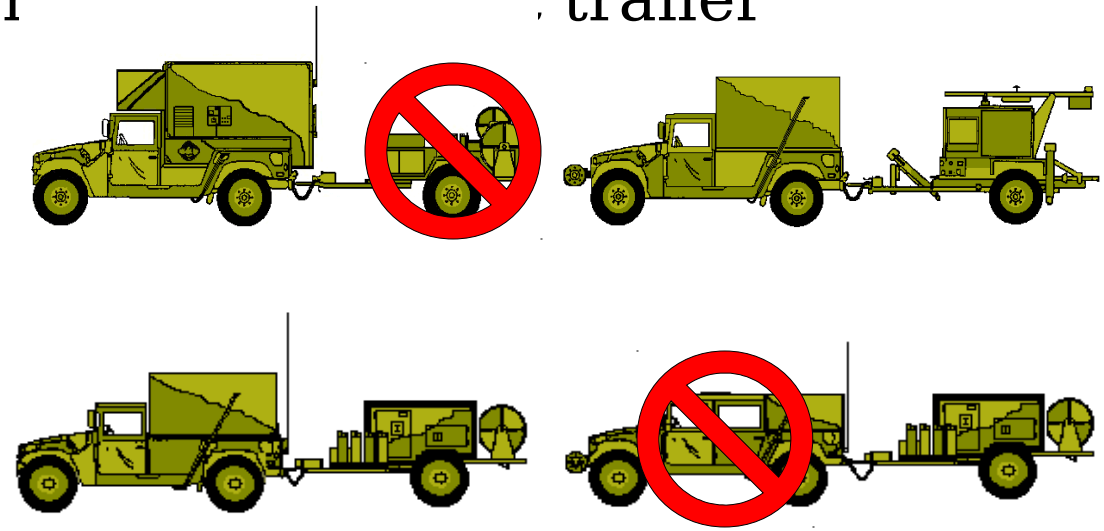
- **Replacement of DMS identified components:**
  - LCU replacement (MILTOPE 750M)
    - NG is currently developing the mounting kit
    - USMC will buy in FY06
  - USMC participate in the Army Q-36 v(8) re-cap
    - USMC procured nine kits FY04, to be installed in FY05 (Tobyhanna/Barstow). Buy remaining in FY05
  - Radar Processor re-host
    - Team forming to implement a partial re-host of the RP hardware and software (Dahlgren, Malibu Research)

AN/TPQ-46A Up-Grade Description

- **Greater detection ranges :**
  - Software - initial build (June 04) opens max range to 35km
  - Radar Processor - re-host is critical to processing power required
  - Up-grade software allowing adaptable radar parameters to achieve performance at increased maximum range
    - Min/Max range modes
    - Search fence (auto terrain following)
    - LSE/RSE adjustments
    - FFPASS in Windows and on Mission operating system

AN/TPQ-46A Up-Grade Description

- **Radar team vehicle re-configuration:**
  - Pull in A2 vehicles to replace A1's
  - Replace one vehicle for Hardback
  - Add over cab racks
  - Remove equipment trailer



AN/TPQ-46A Up-Grade Description

- **Dual digital net:**
  - Initial software build (June 04) pulls in EPLRS protocol
  - Procure EPLRS in FY05
  - Install and deliver EPLRS capability with up-grade
- **Up-Grade IOC FY06 (11th and 14th Marines)**
- **FOC FY08 (10th and 12th Marines)**

AN/TPQ-46A Sustainment

- **IROAN:**
  - Continued IROAN thru FY04-05 (Tobyhanna/Barstow)
  - Roll IROAN into Re-Cap in FY05-06 (Tobyhanna/Barstow/Raytheon?)
  - Install and deliver up-grades in FY06-08 (Tobyhanna/Barstow?)

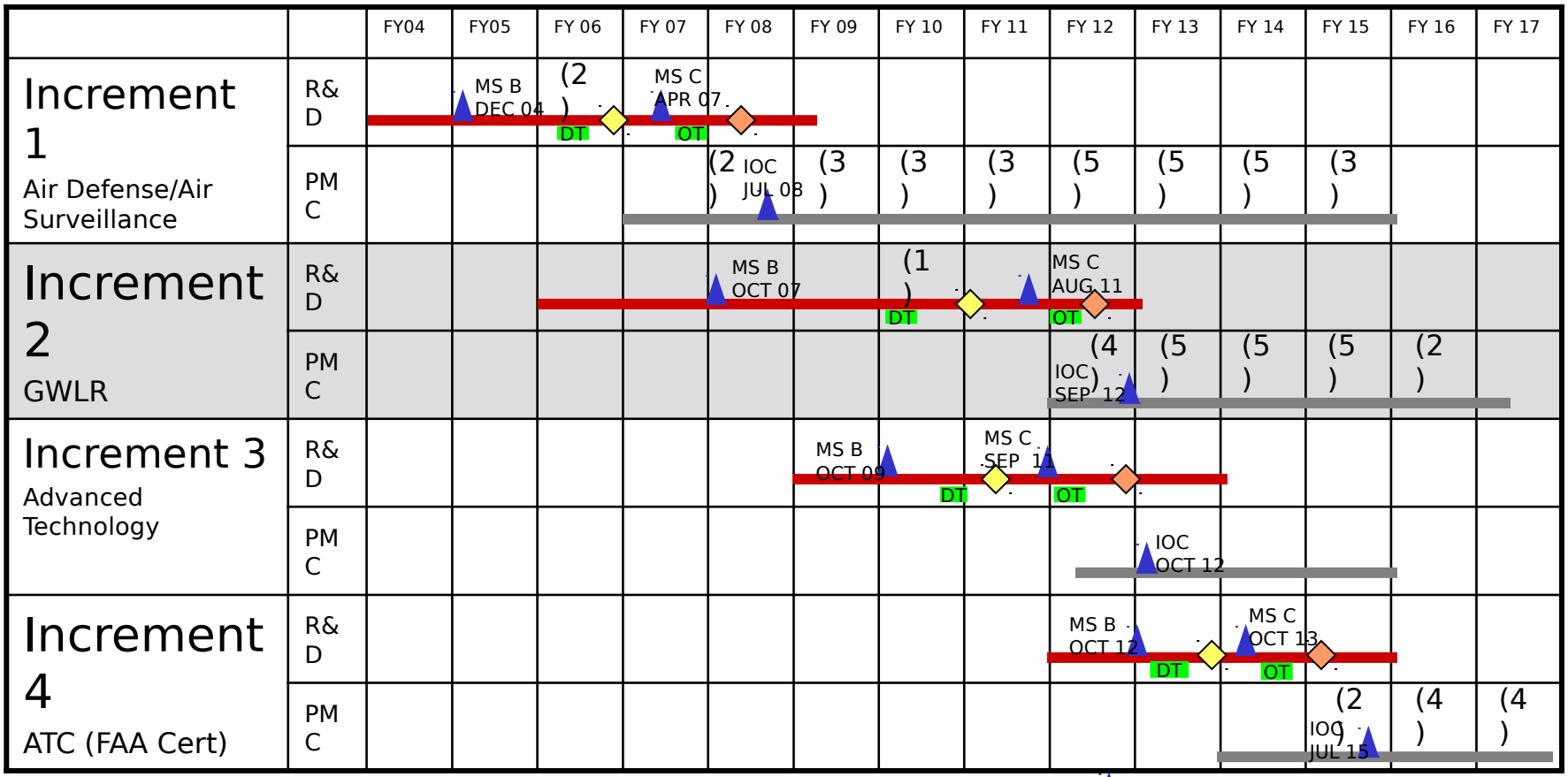
AN/TPQ-46A Sustainment

- **Field Support:**
  - Opportunity for Regiments receive 5th system after up-grade
  - Pay for LAR support to PM Firefinder
  - Implement Marine Corps LAR
  - Opportunity to provide AEM support vehicle when hardback replaces team vehicle
    - Extra vehicle potentially becomes mobile contact team with parts, TMDE, and senior 2887

GWLR

- **Status**
  - GWLR is competing as Increment II of the Ground/Air Task Oriented Radar (G/ATOR)
  - IOC FY12 (potentially FY10 with US Army insertion of funds)
  - US Army has competing initiatives
    - Some level of Joint program is inevitable.
    - US Army lead programs (Phoenix & MMR)
    - USMC lead program (G/ATOR)

GATOR PROGRAM SCHEDULE



AAO = 41 (Increment 1, 3, & 4)
AAO = 22 (Increment 2)
AAO Total = 63

GWLR

- **What this means**
  - GCE and ACE will have closer ties for support and training
  - IOC of FY12 stresses importance of AN/TPQ-46A sustainment (Fully funded in POM06)